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# SUMMARY OF PERFORMANCE GOALS AND RESULTS

## 1999 Results for NSF's Outcome Goals

Each of NSF's outcome goals was achieved in FY 1999. Reports from external evaluators consistently judged NSF's programs to result in high quality scientific outputs and outcomes, and to be largely successful in achieving NSF's performance goals. Exceptions were noted in some areas as needing improvement including need to improve balance of portfolio by taking more risk in a few programs and need to show increases in participation of underrepresented groups in science and engineering in some programs.

## 1999 Results for NSF's Investment Process Goals

Nine of NSF's thirteen investment process goals were achieved in FY 1999, and four goals were not achieved. Areas identified as needing improvement for goals that were achieved include use of the new merit review criteria in some programs. Areas needing improvement where goals were not achieved include making new program announcements and solicitations available at least three months prior to the deadline or target date; decreasing the time to decision; and maintaining openness in the system to increase the percentage of awards to new investigators.

*FY 1999 Result*

*Overall: NSF  
was successful in  
achieving 78%  
of its goals.*

## 1999 Results for NSF's Management Goals

Three of NSF's five investment process goals were achieved in FY 1999, and two goals were not achieved. Areas identified as needing improvement where goals were not achieved include orientation and training of NSF staff using FastLane- NSF's electronic system for proposal submission, proposal review, and project reporting; and increasing the use of the new electronic Project Reporting System for project reporting by awardees.

**FY 1999 Result Overall:** NSF was successful in achieving 78% of its goals.



## Table of Performance Goals and Results

The following table lists each goal and the NSF results for FY 1999. Details related to the results, and information related to verification and validation are found in the report following the table. Goals 1 and 2 pertain primarily to the effectiveness of NSF-supported research activities. Goals 3 and 4 pertain primarily to effectiveness of NSF-supported education activities. The remaining goals pertain to both research and education activities.

### FY 1999 Annual Performance Goals and Results for OUTCOMES<sup>1</sup>

Strategic Outcomes	FY 1999 Annual Performance Goals
Discoveries at and across the frontier of science and engineering	<p><b>Goal 1.a</b> NSF is <i>successful when</i> NSF awards lead to important discoveries; new knowledge and techniques, both expected and unexpected, within and across traditional disciplinary boundaries; and high-potential links across these boundaries.</p> <p><b>FY 1999 Result: Successful.</b> In FY 1999, a total of 43 reports by external experts rated NSF for this goal. All 43 reports rated NSF successful in achieving this goal.</p>
	<p><b>Goal 1.b</b> Relevant to <b>FY 1999 Government-wide goal:</b> An independent assessment will judge NSF research programs to have the highest scientific quality and an appropriate balance of projects characterized as high-risk, multidisciplinary, or innovative.</p> <p><b>FY 1999 Result: This goal was achieved.</b> In FY 1999, all external reports indicated that NSF programs have high scientific quality. Of 30 reports by external experts that gave an opinion on balance of projects in the programs under review, 24 reports indicated that the balance was appropriate.</p>
Connections between discoveries and their use in service to society	<p><b>Goal 2</b> NSF is <i>successful when</i> the results of NSF awards are rapidly and readily available and feed, as appropriate, into education, policy development, or use by other federal agencies or the private sector.</p> <p><b>FY 1999 Result: Successful.</b> In FY 1999, a total of 43 reports by external experts rated NSF for this goal. Of these, 42 reports rated NSF successful in achieving this goal.</p>

<sup>1</sup> Goals 1-4, and Goal 7, are stated in the alternative format provided for in GPRA legislation. A more complete discussion of results is provided in the section on Performance Results.



<p><b>A diverse, globally-oriented workforce of scientists and engineers</b></p>	<p><b>Goal 3</b> NSF is <i>successful when</i> participants in NSF activities experience world-class professional practices in research and education, using modern technologies and incorporating international points of reference; when academia, government, business, and industry recognize their quality; and when the science and engineering workforce shows increased participation of underrepresented groups.</p> <p><b>FY 1999 Result: <i>Successful.</i></b> In FY 1999, a total of 44 reports by external experts rated this goal, with 38 reports rating NSF successful in achieving all or most areas of the goal.</p>
<p><b>Improved achievement in mathematics and science skills needed by all Americans</b></p>	<p><b>Goal 4.a</b> NSF is <i>successful when</i> NSF awards lead to the development, adoption, adaptation, and implementation of effective models, products, and practices that address the needs of all students; well-trained teachers who implement standards-based approaches in their classrooms; and improved student performance in participating schools and districts.</p> <p><b>FY 1999 Result: <i>Successful, in most areas of this goal.</i></b> In FY 1999, 22 reports by external experts rated NSF for this goal. Of these, 18 reports rated NSF successful in achieving this goal in all or most areas of the goal.</p> <p><b>Goal 4.b</b> Over 80 percent of schools participating in a systemic initiative program will (1) implement a standards-based curriculum in science and mathematics; (2) further professional development of the instructional workforce; and (3) improve student achievement on a selected battery of tests, after three years of NSF support.</p> <p><b>FY 1999 Result:</b> In 1999, 40 NSF sponsored projects implemented mathematics and science standards-based curricula in over 81 percent of participating schools, and provided professional development for more than 156,000 teachers. All participating educational systems demonstrated some level of improvement in student achievement in mathematics and science on a battery of system-selected assessment instruments.</p> <p><b>Goal 4.c</b> Through systemic initiatives and related teacher enhancement programs, NSF will provide intensive professional development experiences for at least 65,000 precollege teachers.</p> <p><b>FY 1999 Result:</b> In FY 1999, systemic initiatives and related teacher enhancement programs provided intensive professional development to a total of 82,400 teachers, exceeding the goal of 65,000.</p>

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## FY 1999 Annual Performance Goals and Results for OUTCOMES<sup>1</sup> *(continued)*

Strategic Outcome	FY 1999 Annual Performance Goal
<b>Timely and relevant information on the national and international science and engineering enterprise.</b>	<p><b>Goal 5.a</b>    Decrease by 10% from the current average of 540 days the time interval between reference period (the time to which the data refer) and reporting of data.</p> <p><b>FY 1999 Result:</b> <i><b>This goal was achieved.</b></i> The average time interval decreased to 485 days.</p>
	<p><b>Goal 5.b</b>    Achieve customer satisfaction ratings with the relevance of products offered of at least 45% "excellent" and at least 90% "excellent" or "good". FY 1998 baseline is 38% "excellent" and 88% "excellent" or "good" from a 1996 customer service survey.</p> <p><b>FY 1999 Result:</b> <i><b>This goal was achieved.</b></i> Customer satisfaction ratings were 60% "excellent" and 90% "excellent to good".</p>



## FY 1999 Annual Performance Goals and Results for INVESTMENT

Performance Area	FY 1999 Annual Performance Goal
<b>Proposal and Award Processes</b>	
<b>Use of Merit Review</b>	<p><b>Goal 6</b> At least 90 percent of NSF funds will be allocated to projects reviewed by appropriate peers external to NSF and selected through a merit-based competitive process. FY 98 Baseline: 90%. FY 1999 Goal: 90%.</p> <p><b>FY 1999 Result: <i>This goal was achieved.</i></b> 95% of projects allocated funds in FY 1999 were merit reviewed.</p>
<b>Implementation of Merit Review Criteria</b>	<p><b>Goal 7</b> NSF performance in implementation of the new merit review criteria is successful when reviewers address the elements of both generic review criteria appropriate to the proposal at hand and when program officers take the information provided into account in their decisions on awards; minimally effective when reviewers consistently use only a few of the suggested elements of the generic review criteria although others might be applicable.</p> <p><b>FY 1999 Result: <i>Largely successful, needs improvement.</i></b> In FY 1999, a total of 44 reports by external experts rated NSF on their use of the new merit review criteria. NSF was rated successful in achieving this goal by 36 of those reports.</p>
<b>Customer Service -- Time to Prepare Proposals</b>	<p><b>Goal 8</b> 95% of program announcements and solicitations will be available at least three months prior to proposal deadlines or target dates improving upon the FY 1998 baseline of 66%.</p> <p><b>FY Result: <i>This goal was not achieved;</i></b> 75% of program announcements and solicitations were available at least three months prior to proposal deadlines or target dates.</p>
<b>Customer Service -- Time to Decision</b>	<p><b>Goal 9</b> Process 70% of proposals within six months of receipt improving upon the FY 1998 baseline of 59%.</p> <p><b>FY 1999 Result: <i>This goal was not achieved;</i></b> 58% of proposals were processed within six months of receipt.</p>



## FY 1999 Annual Performance Goals and Results for INVESTMENT *(continued)*

Performance Area	FY 1999 Annual Performance Goal	
<b>Award Duration</b>	<b>Goal 10</b>	<p>Increase average duration of awards for research projects from a FY 1998 base of 2.7 years to at least 2.8 years.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i> The average duration of awards for research grants was increased to 2.8 years in FY 1999.</p> <p>This goal will be replaced in FY 2000 with a goal on customer service.</p>
<b>Maintaining Openness in the System</b>	<b>Goal 11</b>	<p>NSF will increase the percentage of competitive research grants going to new investigators to at least 30%, 3% over a baseline of 27%.</p> <p><b>FY 1999 Result:</b> <i>This goal was not achieved;</i> 27% of competitive research grants were made to new investigators.</p>
<b>Emerging Opportunities</b>		
<b>Identifying Emerging Opportunities</b>	<b>Goal 12</b>	<p>All directorates within NSF will establish Web sites for the science and engineering community to provide suggestions for and comment upon emerging opportunities.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i> Web sites for providing suggestions and comments on emerging opportunities were established by all directorates at NSF in FY 1999.</p>
<b>Integration of Research and Education</b>		
<b>Encouraging Integration of Research and Education</b>	<b>Goal 13</b>	<p>NSF will ensure that all of its new announcements of opportunities and proposal solicitations will contain an explicit statement encouraging proposers to integrate research activities with improving education or public understanding of science.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i></p>
<b>Diversity</b>		
<b>Encouraging Attention to Diversity in all Aspects of NSF Programming</b>	<b>Goal 14</b>	<p>NSF will ensure that all of its new announcements of opportunities and proposed solicitations will include a statement encouraging proposers to address improving the participation of underrepresented groups in science and engineering in the course of their research and education activities.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i></p>

Facilities Oversight	
Construction and Upgrade	<p><b>Goal 15.a</b> Keep construction and upgrades within annual expenditure plan, not to exceed 110 percent of estimates.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i></p>
	<p><b>Goal 15.b</b> Keep construction and upgrades within annual schedule; total time required for major components of the project not to exceed 110 percent of estimates.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i></p>
	<p><b>Goal 15.c</b> For all construction and upgrade projects initiated after 1996, keep total cost within 110 percent of estimates made at the initiation of construction.</p> <p><b>FY 1999 Result:</b> <i>This goal was not applicable in FY 1999.</i></p>
Operations	<p><b>Goal 15.d</b> Keep operating time lost due to unscheduled downtime to less than 10 percent of the total scheduled possible operating time.</p> <p><b>FY 1999 Result:</b> <i>The results were inconclusive.</i> The data base was under development in FY 1999 and requires further evaluation.</p>



## FY 1999 Annual Performance Goals and Results for MANAGEMENT

Critical Factor for Success	FY 1999 Performance Goal
<b>New and Emerging Technologies</b>	
<b>Electronic Proposal Processing</b>	<p><b>Goal 16</b> NSF will receive at least 25% of full proposal submissions electronically through FastLane improving upon the FY 1998 baseline of 17.5%</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i> 44% of full proposal submissions were received through FastLane in FY 1999.</p>
<b>NSF Staff</b>	
<b>Diversity</b>	<p><b>Goal 17</b> In FY 1999, as all appointments for scientists and engineers are considered, the recruiting organization will demonstrate efforts to attract applications from groups that are underrepresented in the science and engineering staff as compared to their representation among Ph.D. holders in their fields.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i></p>
<b>Capability in use of Information Technology</b>	<p><b>Goal 18</b> By FY 1999, all staff will receive an orientation to FastLane, and at least 95% of program and program support staff will receive practice in using its key modules.</p> <p><b>FY 1999 Result:</b> <i>This goal was not achieved;</i> 80% of all employees received an orientation to FastLane and 40% of program and program support staff received practice in using its key modules.</p>
<b>Implementation of Management Reforms</b>	
<b>Year 2000</b>	<p><b>Goal 19</b> NSF will complete all activities needed to address the Year 2000 problem for its information systems according to plan, on schedule and within budget, during FY 1999.</p> <p><b>FY 1999 Result:</b> <i>This goal was achieved.</i></p>
<b>Project Reporting System</b>	<p><b>Goal 20</b> During FY 1999, at least 70% of all project reports will be submitted through the new electronic Project Reporting System.</p> <p><b>FY 1999 Result:</b> <i>This goal was not achieved;</i> 59% of all project reports were submitted through the electronic Project Reporting System.</p>

